

REMARKS

Applicants would like to thank the examiner for careful consideration. In view of the Office Action dated June 3, 2005, the following amendments and remarks are submitted herewith.

Claims 1-12, 16 and 17 are pending in this application. Claims 13-15 and 18-20 have been withdrawn from consideration. Claims 1-12, 16 and 17 have been amended to improve claim content. Support for all amendments can be found in the specification and claims as originally filed. No new matter has been added.

35 USC 112 REJECTIONS:***First Paragraph***

Claims 1-12, 16 and 17 have been rejected under 35 USC 112, first paragraph as failing to comply with the enablement requirement. The examiner states that the claims contain subject matter that is not described in the specification in such a way as to enable one skilled in the art to which it pertains or with which is most nearly connected, to make and/or use the invention, and that the polymeric compounds of the claimed invention are not taught in a manner that would enable one of ordinary skill to practice the invention.

35 USC 112, first paragraph requires that the specification includes the following: a written description of the invention, the manner and process of making and using the invention (the enablement requirement) and the best mode of carrying out the invention contemplated by the inventor. "The test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with the information known in the art without undue experimentation". *In re Wands*, 858 F.2d at 737, 8 USPQ2d at 1404 (Fed. Cir. 1988). See also *United States v. Telectronics, Inc.*, 857 F.2d 778, 785, 8 USPQ2d 1217, 1223 (Fed. Cir. 1988). Accordingly, the Examiner has the burden to establish a reasonable basis to question the enablement provided for the claimed invention.

Applicants have clearly described in the specification in sufficient detail how to make the invention so that a person skilled in the art can make and use the invention
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without undue experimentation. Particularly, the claimed polymeric transition metal catalysts are described in detail including preferred embodiments of the polymeric compounds on page 2 line 11 through page 11 line 14. The process of creating the claimed polymeric compounds including preferred embodiments of preparing the invention is described on page 11 line 16 through page 16 line 20, and the description of how to use the claimed invention is described in detail on page 16 line 20 to page 17 line 28. Pages 18-27 of the specification further provide Examples to describe the claimed invention including the process of making the compounds (Examples 1-8) and combining the compounds to create the polymeric compounds (Example 9). Examples 10-24 go on to describe specific uses of the polymeric compounds prepared in the previous examples as catalysts in metathesis reactions. Accordingly, the specification disclosure contains a teaching of the manner and process of making and using the invention in terms which correspond in scope to those used in describing and defining the subject matter sought to be patented, in this instance for example, a process for preparing polymeric transition metal catalysts and using them in metathesis reactions. Furthermore, the Examiner has not satisfied the burden of proof for establishing a reasonable explanation as to why the scope of protection provided by a claim is not adequately enabled by the disclosure. Accordingly, Applicants respectfully request withdrawal of the rejection.

35 USC 103 REJECTIONS:

The Examiner has rejected claims 1-12, 16 and 17 under 35 USC 103(a) as being unpatentable over Hoveyda et al. (WO 02/14376, hereinafter referred to as "Hoveyda") in view of Muhlebach et al. (US Pat. No. 5,854,299, hereinafter referred to as "Muhlebach"). Applicants respectfully traverse this ground of rejection.

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (Fed. Cir. 1974)". Applicants also respectfully submit that "in order to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves

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or in the knowledge generally available to one of ordinary skill in the art, to modify the reference. Second, there must be a reasonable expectation of success. Finally, the prior art references must teach or suggest all the claims limitations. The teachings or suggestions to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicants' disclosure." See MPEP § 2142, citing *In re Vaack*, 947 F.2d 488, 20 USPQ 2d. 1438 (Fed. Cir. 1991).

Hoveyda describes monomeric and dendritic organometallic complexes comprising a transition metal-based metathesis catalysts and an organic ligand. According to Hoveyda, these catalysts are highly efficient and can be easily recovered from reaction mixtures and reused. Hoveyda also teaches the immobilization of these catalysts on the surfaces of a solid phase without inhibiting their catalytic efficiency.

Muhlebach describes a process of polymerizing olefins by photochemical ring-opening metathesis polymerization (ROMP) using catalytic amounts of heat-stable ruthenium (Ru) and osmium (Os).

The pending invention is directed to a "polymeric transition metal catalyst" (See preamble amended Claim 1) that can be used for olefin metathesis reactions. The polymeric transition metal catalysts according the invention can be obtained in high yield, show catalytic activity in metathesis reactions, and can be recovered and reused easily.

The Examiner correctly points out that Hoveyda fails to teach polymeric compounds containing the transition metal (Ru) complexes. Therefore, Hoveyda does not teach or suggest all of the claimed limitations in the present claimed invention and cannot alone be used as grounds of a 35USC 103 rejection.

The examiner goes on to state that one skilled in the art would be motivated to modify Hoveyda in view of Muhlebach by introducing cyclic olefins in the presence of the Ru complex. The Examiner argues that the use of Ru complexes as taught by Hoveyda would be similarly useful and applicable to the ROMP process in Muhlebach. However, Muhlebach fails to teach or suggest "a polymeric transition metal catalyst" as recited in amended Claim 1. The present claimed invention is directed to transition metal catalyst encapsulated in polymeric support, and not the process of creating a

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polymeric support. Therefore, Muhlebach does not offer teach or suggest limitations that would cure deficiencies in Hoveyda. Reconsideration is respectfully requested.

In view of the above amendments and remarks, Applicants submit that the claims are in condition for allowance, and respectfully request that the Examiner reconsider and allow the pending claims.

Respectfully submitted,

By

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December 5, 2005

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